



WEEKLY GI RESEARCH WEBINAR

**Chalk Talk: "Rethinking
stem cells: paligenosis
and cell plasticity in
regeneration and cancer"**

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The Mills Lab focuses on how organs of the gastrointestinal (GI) tract renew themselves. In homeostasis, in the esophagus, stomach, and intestines, renewal is mostly via constitutive stem cells that differentiate into the various mature cell types that perform the quotidian digestive functions. However, after injury, GI organs exhibit remarkable cellular plasticity: those workhorse cells can be recruited back into a progenitor, regenerative state. The lab is particularly interested in the basic science, mechanistic aspects of the evolutionarily conserved cellular program that governs how such large, mature, specialized cells can return to a more embryonic, proliferative state (a process called paligenosis). Aberrant paligenosis seems to be how precancerous lesions like metaplasias develop. The lab uses translational and clinical research approaches to understand how paligenosis may lead to tumorigenesis and also promote tumor growth.

SEPT 24 • 4:00 PM

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